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HOUSEKEEPERS' CHAT

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(FOR BROADCAST USE ONLY)

Subject: "COOKING WITH MILK AND CHEESE." Information from the Bureau of Home Economics, United States Department of Agriculture.

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Homemakers, truer words were never spoken -- than these: "To provide a good meal, somebody in the household must know how to cook."

That's our theme for today. I selected it from this week's copy of the "Market Basket," compiled by experts in the Bureau of Home Economics, who tell us their ways of cooking with milk, and with cheese.

"Markets and gardens offer almost everything right now in the way of summer vegetables," say the home economists, "and there is choice enough to satisfy the most careful housekeeper as well as the most capricious appetite. However, providing a good meal, even with the best of planning, means more than knowing how to choose from the season's best. It means that somebody in the household must know how to cook.

"Vegetable cookery, however, involves other foods. For greater variety in flavor and texture, we cook vegetables in different ways in many combinations with other foods. Sometimes not for variety alone, but for economy and often to increase the food value of the meal. And there," according to the experts, "is where milk and cheese come in. They supplement the food values of the vegetables, and at the same time give a new character to many a vegetable dish."

And now, homemakers, a few basic rules. For of course we can't have cream vegetable soups, creamed or scalloped vegetables, or even macaroni and cheese, unless we know how to cook the protein foods. Here are the rules -- I'm quoting directly from the Bureau of Home Economics food specialists:

"The basic rule for cooking protein foods -- and that means not only milk and cheese but meat, fish, poultry and eggs -- is to cook them at low or moderate temperature, because protein coagulates, hardens, and finally toughens under high temperature and prolonged heating. The proteins in milk create special problems for the cook. Most troublesome is the curdling or 'separating' of milk when heated in combination with certain other foods. One of the milk proteins is casein, which is precipitated in curds when milk is heated in a mixture containing even a little acid. Most vegetables contain some acid. For this reason, asparagus, string beans, carrots, and peas, for example, are not cooked in plain milk. When we make cream of tomato soup, we take special precautions.

"The usual answer to this problem of curdling is to thicken the milk -- in other words, to make it into a white sauce before combining with the vegetables. The starch in the white sauce prevents curdling when combined with the vegetable, provided the mixture is not heated too long and is served immediately. If allowed to stand it will curdle.

"For cream of tomato soup the best way to prevent curdling is to thicken the tomato juice and add it to the cold milk. Neutralizing the acid in the tomato juice by means of soda is another method, but the soda injures the flavor and tends to destroy the vitamin content of the tomatoes.

"Other mixtures that may curdle are chocolate, which contains some acid, and rice pudding, especially if there are raisins in the pudding. Cook these at the lowest possible temperature.

"When milk is heated, a skin forms on the surface of the milk and on the sides of the pan almost as soon as it is put over the fire. This skin is not attractive, but it contains important food values. The best way to prevent it is to stir the milk as it heats, or heat it afterward with an egg beater. Hot cocoa and chocolate, for example, are more inviting if well beaten before serving.

"When it comes to vegetable dishes containing milk and eggs, we want to prevent both curdling and another kind of protein behavior -- shrinkage and toughening. Again, we thicken the milk. The basis of a vegetable or a fruit soufflé, or any soufflé for that matter, is white sauce and eggs. To the white sauce add first the egg yolks, then the finely divided vegetable or fruit or cheese, or other flavoring, as the case may be, then the egg white beaten to a foam. Although thickening the milk prevents curdling due to any acid that may be present, too much heat causes the proteins in the mixture to shrink and toughen, contracting the foamy structure, releasing the air and causing the soufflé to 'fall'.

"Cheese dishes -- made with such solid cheeses as American cheddar -- are always mixtures of cheese with something else. Usually the method is to add the cheese to a white sauce, which is then combined with the other ingredients. Or, if the cheese is dry and hard, like Parmesan, it is grated and served, Italian fashion, on a separate dish, to be sprinkled over soup, or macaroni, or vegetables. In other words, cheese is such a concentrated food that we can not take much of it 'straight'. And cooking with cheese, a milk product, involves the milk proteins and the cooking problems those proteins create. Cheese, in fact, should not be really cooked, but merely heated enough to melt it. Overheating toughens and hardens cheese, and may cause a cheese mixture to 'separate' -- as witness many a welsh rabbit.

"All the typical cheese dishes illustrate these principales. For macaroni and cheese, and all the vegetable dishes with cheese, the rules are to make a white sauce, add grated cheese to this sauce, and heat the mixture only until the cheese is melted. Combine this sauce, now a cheese sauce, with cooked macaroni, cooked rice, cooked potatoes or other vegetable, to avoid cooking the cheese again. Heat this mixture through, and, if an oven dish, brown it. But do not heat longer than necessary, or it will separate."

And so concludes today's report from the Bureau of Home Economics.

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